# IN THE UNITED STATES DISTRICT COURT WESTERN DISTRICT OF MISSOURI SOUTHERN DIVISION

Owens Corning Sales, Ll	LC, and	)	
Owens Corning Mineral Wool, LLC,		)	
		)	
	Plaintiffs,	)	
VS.		)	No. 6:18-cv-03038-MDH
		)	
Area Impianti S.p.A.,		)	
		)	
	Defendant.	)	

## FIRST AMENDED COMPLAINT

#### COUNT I — BREACH OF CONTRACT

Owens Corning Sales, LLC and Owens Corning Mineral Wool, LLC, Plaintiffs, by and through counsel, Lathrop Gage LLP, for their petition against Area Impianti, S.p.A., state:

- 1. Owens Corning Sales, LLC is a Delaware Limited Liability Company, properly registered and authorized to do business in the State of Missouri.
- 2. Owens Corning Mineral Wool, LLC is a Delaware Limited Liability Company, properly registered and authorized to do business in the State of Missouri.
- 3. Owens Corning Sales, LLC, at all times relevant herein, was the agent and attorney-in-fact for Owens Corning Mineral Wool, LLC. Collectively, Owens Corning Sales, LLC and Owens Corning Mineral Wool, LLC are referred to herein as "Owens Corning."
- 4. Upon information and belief Area Impianti, S.p.A. is organized and existing under the laws of the country of Italy. Area Impianti, S.p.A. is registered to do business in Missouri as Area Impianti S.p.A. Corp. ("Area Impianti").
- 5. Area Impianti may be served by serving its registered agent in Missouri: CSC-Lawyers Incorporating Service Company, 221 Bolivar Street, Jefferson City, MO 65101.

- 6. In addition to the roofing and fiberglass insulation products manufactured by Owens Corning and its affiliates, Owens Corning is also in the business of manufacturing and selling mineral fiber insulation.
- 7. Mineral fiber insulation is manufactured through a proprietary process that melts rock, slag, and other material in a cupola furnace to produce mineral fiber insulation.
- 8. To meet the growing demand for mineral fiber, Owens Corning elected to construct a new \$90 Million Mineral Fiber Insulation Manufacturing Facility in Joplin, Missouri ("Joplin Facility").
- 9. The air pollution control ("APC") system is a necessary component of the Joplin Facility.
- 10. Owens Corning invited Area Impianti and several other APC system designers to respond to a Request for Proposal ("RFP") regarding the design, fabrication and supply of the APC system at the Joplin Facility.
- 11. Based upon Area Impianti's response to the RFP, which included Owens Corning Equipment Specification No. AFW178696-01, Rev. B. ("Specification"), and the representations and guarantees made by Area Impianti, Owens Corning selected Area Impianti as the Vendor to design the APC system and to fabricate and supply the equipment for the APC system.
- 12. Owens Corning issued Purchase Order No. 4509221545 ("Purchase Order," Ex. A) to Area Impianti. The issuance of the Purchase Order resulted in an agreement between the parties, which includes the Purchase Order, the Specification, the RFP including certain performance guarantees and emissions guarantees, and certain Terms and Conditions (collectively "the Contract"). As principal, Owens Corning Mineral Wool, LLC is the intended

beneficiary of the Contract, entitled to enforce the rights of Owens Corning against Area Impianti.

- 13. The Specification is a functional and performance-based specification: it identifies suggested equipment to be included in the APC system by describing the basic required function of each piece of equipment, but rarely dictates the specific design features of that equipment.
- 14. In some critical instances, the Specification defines performance parameters and operational characteristics required of the system provided by Area Impianti. For example, the blast air temperature requirement is 1,200° F and the Thermal Incinerator discharge temperature requirement is 1600° F.
- 15. The Specification requires certain important performance parameters and operational characteristics from the system designed, fabricated, and supplied by Area Impianti, including but not limited to:

<b>Specification Section</b>	Requirement or Operational Characteristic		
3.4 Thermal	Capable of continuously operating at 1,600° F		
Incinerator			
	Recognizing the "sticky" nature of combustion exhaust acid gases, the incineration chamber may require a degree of acid gas treatment to sustain optimal life and performance of downstream systems. The primary purpose of this treatment, if deemed to be required, is to avoid tube and duct fouling/plugging downstream.		
3.5 Thermal Recovery Heat Exchanger	The ambient blast air shall be heated from an ambient of 0° F to 110° F to an operational temperature of 1,200° F (measured at the cupola hot blast forced air inlet).		
	Heat exchangers should include online cleaning systems providing: Continuous cupola furnace operations (24hrs/day, 7 days/week) which support uninterrupted multi-week production campaigns.		

<b>Specification Section</b>	Requirement or Operational Characteristic
3.16 Performance	The minimum SO <sub>2</sub> removal is:
	80% destruction efficiency with a DSI system
	92% destruction efficiency with a semi-dry FGDS

- 16. The Specification also requires that the critical performance parameters be guaranteed by Area Impianti. Part 5.0 of the Specification lists the performance and operating guarantees required of Area Impianti. These include various pollutant emission guarantees, reagent consumption guarantees, and electric power consumption guarantees. For example, Specification section 5.11 specifically requires that "Vendor shall guarantee pressure drop across the heat exchanger and all air pollution control devices. Vendor shall also guarantee maximum pressure drop with one baghouse compartment off."
- 17. The functional Specification required Area Impianti to guarantee the Cupola exhaust gas system's air pollution control efficiencies and heat recovery levels so that Area Impianti's "final overall system design, material selections, equipment selections and anything else bearing on the system performance shall ultimately be entirely within [Area Impianti's] control and dictated by [Area Impianti's] experience and technical knowledge."
  - 18. In addition to the guarantees required by the Specification and the RFP:
  - (a) Area Impianti issued specific emissions guarantees as set out in Section 4.1 of Area Impianti's response to the RFP (Offer 14.256 rev.05, page 76);
  - (b) Area Impianti guaranteed performance of "Blast air temperature at battery limit: 649 °C (1200 °F) in Section 4.2 of Area Impianti's response to the RFP;
  - (c) Area Impianti provided consumption guarantees in Section 4.3 of its RFP response; and

- (d) Area Impianti also issued mechanical and functional guarantees in Section4.4 of the RFP response.
- 19. Area Impianti elected to deviate from Owens Corning's suggestion (as outlined in section 1.4.2 of the Specification) by providing a "Double Alkali Dry Injection" rather than a Semi-Dry Flue Gas Desulfurization System (FGDS).
- 20. Owens Corning awarded the Contract to Area Impianti based materially upon Area Impianti's performance guarantees and Area Impianti's representations that the system designed, fabricated, and installed would exceed the operational requirements in the Specification.
- 21. The technical requirements and the guarantees required by the Specification and affirmed by Area Impianti, were incorporated into the Contract.
- 22. Area Impianti materially represented to Owens Corning the benefits of using the dolomitic hydrated lime for injection upstream of the convective heat exchangers would help the heat exchanger cleaning and increase the lifetime of the heat exchangers downstream, protecting them from acid corrosion." (Offer 14.256 rev.05, page 14).
- 23. On pages 28-29 of its Proposal, Area Impianti represented that its specific heat exchanger design would be relatively unaffected by pluggage or buildup.
- 24. Area Impianti represented in its Proposal that "one manual cleaning every 6 months should be largely enough to ensure good operation."
- 25. Area Impianti was required to design, fabricate, and supply the flue gas treatment system for the Curing Oven at the facility and the APC system for the cupola furnace at the Joplin Facility to achieve the guarantee levels required by the Specification.

- 26. Area Impianti materially breached the Contract with Owens Corning in numerous respects, including but not limited to:
  - (a) Area Impianti materially breached the agreed-upon delivery schedule and has failed, and continues to fail, to provide a system that operates to the minimum requirements of the Contract.
  - (b) The system designed, fabricated and supplied by Area Impianti does not meet the emission guarantees, performance guarantees, consumption guarantees or the mechanical and functional guarantees made by Area Impianti and relied upon by Owens Corning.
  - (c) The system designed, fabricated and supplied by Area Impianti has failed to avoid pluggage of the convective heat exchangers. The pluggage of the convective heat exchangers fails to meet the functional design requirement in Specification Section 3.5 which required "Heat exchangers should include online cleaning systems providing: Continuous cupola furnace operations (24hrs/day, 7 days/week) which support uninterrupted multi-week production campaigns."
  - (d) The system designed, fabricated and supplied by Area Impianti had significant fitment issues requiring substantial field modifications of the equipment, parts and connections, all at substantial cost to Owens Corning.
  - (e) The system designed, fabricated and supplied by Area Impianti fails to achieve and control proper blast air flow at the cupola. The control of blast air flow and temperature (1,200° F) is critical to the proper operation of the cupola and failure to meet the required operating blast air temperature is a material breach of the Contract and the Performance Guarantees.

- (f) The system designed, fabricated, and supplied by Area Impianti fails to achieve and control proper, consistent, and measurable hydrated lime feed rates in violation of the Contract, including the consumption guarantees.
- (g) Area Impianti's design fails to include a mechanism to evenly mix the lime powder into the flue gas.
- (h) Owens Corning has experienced significant commissioning problems due to non-performance of critical elements of the system.
- (i) Area Impianti has failed to perform and provide computational fluid dynamic (CFD) modeling to assess or verify the efficiency of the mixing of the hydrated lime feed into the gas stream.
- (j) Even with the addition of a second burner not part of Area Impianti's original design, the system does not achieve and control the proper thermal incinerator exit temperature of 1,600 °F required by the Specification.
- (k) Area Impianti has failed to prevent air in-leakage to the cupola exhaust gas path. Excessive in-leakage of ambient air into the gas stream has been a contributing factor to the high pressure loss between the cupola exit and the ID Fan.
- (1) The system designed, fabricated and supplied by Area Impianti fails to meet the Specification requirement that the Cupola APC System allow "Continuous cupola furnace operations (24hrs/day, 7 days/week) which support uninterrupted multi-week production campaigns."
- (m) The Cupola APC as designed, fabricated and supplied by Area Impianti has failed to meet the National Fire Protection Codes and Standards as required by the Contract. These include, but are not limited to:

- (i) Certain pieces of equipment, such as valves associated with the burner, were not appropriately selected for the environment in which the project is located, contrary to §6.2.1 Standard for Ovens and Furnaces (NFPA 86); and
- (ii) Fuel gas piping was not designed and provided under section 6.2 National Fuel Gas Code (NFPA 54).
- 27. Due to problems caused by the design, fabrication and supply failures of Area Impianti, Cupola operation (and therefore mineral fiber insulation production campaigns) must be curtailed long before the intended end date. Since plant startup in May 2017, through December of 2017, the majority of attempted production runs terminated within a few days due to problems with the design and fabrication of the Cupola APC System supplied by Area Impianti.
- 28. The Area Impianti design, fabrication and supply failures have resulted in dangerous emissions episodes.
- 29. The cost incurred by Owens Corning to correct the fitment issues associated with the improperly designed and fabricated equipment and materials supplied by Area Impianti exceeds the remaining balance of the Contract, which has been withheld by Owens Corning pursuant to Section 9 of the Terms and Conditions of the Contract.
- 30. The anticipated cost to correct and complete the work required of Area Impianti so the Air Pollution Control System will achieve and operate at the levels required by the Specification and assured by the performance guarantees made by Area Impianti is expected to exceed three million dollars (\$3,000,000).

- 31. On multiple occasions since system startup, the Regenerative Thermal Oxidizer (RTO) has failed in operation. At least one such failure resulted in overheating that caused significant structural damage to RTO chamber B.
  - 32. The RTO defaults by Area Impianti include, but are not limited to:
  - (a) The RTO was designed, fabricated and supplied without proper safety systems as required by NFPA 86 (National Fire Protection Association Standard for Ovens and Furnaces) and NFPA 54 (National Fuel Gas Code);
  - (b) Appropriate measurement devices consistent with industry norms were not supplied;
    - (c) Sensors were inappropriate for chosen use;
  - (d) The PLC system allows overrides of device measurements to enable operation in unsafe, damaging and insufficient modes; and
    - (e) The Equipment was not configured to fail in safe mode.
- 33. In addition to numerous communications with Area Impianti during the project about the above-listed deficiencies in Area Impianti's performance, on or about September 12, 2017, Owens Corning notified Area Impianti that Area Impianti had not provided root cause/causes or corrective actions for process performance deficiencies required for (1) Cupola Exhaust Capacity; (2) Blast Air Volume; (3) Blast Air Temperature; and (4) Safety. The September 12, 2017 communication from Owens Corning also informed Area Impianti about concerns with the cupola pollution control system's ongoing failures to achieve required SO<sub>x</sub> Removal and failures of the Regenerative Thermal Oxidizer to achieve appropriate incineration temperature despite 100% burner output.

- 34. Area Impianti has failed to adequately cure the deficiencies set out in the Owens Corning notice dated September 12, 2017.
- 35. On or about September 27, 2017, Owens Corning provided a Notice of Default to Area Impianti, pursuant to Section 15 of the Terms and Conditions of the Contract, giving Area Impianti ten (10) days to cure the many continuing deficiencies in the operation of the system caused by the failure of the design, fabrication and supply of the system.
- 36. In response to the September 27, 2017 default notice, Area Impianti requested additional time to perform assessments of the system and develop an Action Plan to achieve the operational performance required by the Contract.
- 37. Owens Corning, without waiving any claims, agreed to allow Area Impianti time to develop and implement an Action Plan to cure all defects, conditioned upon achievement of full operation in accordance with the requirements of the Contract and the performance guarantees no later than November 24, 2017.
  - 38. Area Impianti failed to cure those defects by November 24, 2017.
- 39. On December 15, 2017, Owens Corning provided Area Impianti with an additional notice of default under Section 15 of the Terms and Conditions of the Contract, giving Area Impianti another ten (10) days to cure the above-mentioned deficiencies.
  - 40. Area Impianti failed to cure those defects within the ten-day period.
  - 41. Owens Corning has performed its obligations under the Contract.
- 42. Owens Corning has sustained significant damages due to the Area Impianti's many breaches of the Contract, including, but not limited to, its failure to timely design, fabricate, and supply a properly functioning APC System and RTO in accordance with the Contract. Owens Corning's damages are continuing to accrue and include, but are not limited to:

- (a) Significantly increased commissioning costs;
- (b) Significantly increased facility operation costs;
- (c) Costs associated with field modifications and fabrication required to connect the equipment provided by Area Impianti;
  - (d) Loss of production;
  - (e) Loss of use;
  - (f) Lost profits;
  - (g) Costs to redesign the work required of Area Impianti;
  - (h) Costs to correct the work required of Area Impianti;
- (i) Costs from the decreased operational lifespan of system components due to shortened production campaigns and accelerated thermal cycling;
- (j) Costs to properly perform the design, fabrication, supply and installation of the APC System to achieve the requirements of the Contract, including performance guarantees and Specification requirements;
  - (k) Costs associated with the repair of the RTO.
- 43. Pursuant to the Contract, Owens Corning is entitled to recover from Area Impianti not only the damages described above, but also the attorneys' fees and expenses incurred by Owens Corning in this action and in curing Area Impianti's defaults.

WHEREFORE, Owens Corning prays for judgment against Area Impianti declaring that Area Impianti has materially breached the Contract, awarding Owens Corning a sum in excess of three million dollars (\$3,000,000) to correct the defective work of Area Impianti and to make Owens Corning whole for the damages it has suffered due to Area Impianti's failure to timely and properly design, fabricate, and supply the system that Area Impianti contracted to provide,

awarding Owens Corning its attorney fees and costs herein incurred, and granting such other and further relief as this Court deems appropriate.

## **COUNT II – NEGLIGENT MISREPRESENTATION**

44. Owens Corning incorporates and realleges the factual allegations made above as if set out here in full.

Area Impianti made multiple representations in the course of its business regarding the quality of its design and fabrication capabilities and the ultimate performance of the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) that it proposed to design and fabricate/manufacture, including the representations reflected in Paragraphs 18, 19, 20, 22, 23, and 24 above (the "Representations"), which are incorporated here by reference.

- 45. Because of Area Impianti's failure to exercise reasonable care, Area Impianti's Representations were false.
- 46. The Representations were intentionally provided by Area Impianti for the guidance of Owens Corning in the planning, construction, and operation of the Joplin Facility.
  - 47. Owens Corning justifiably relied on Area Impianti's Representations.
- 48. Due to Owens Corning's reliance on Area Impianti's Representations, Owens Corning suffered pecuniary losses, including the losses described in Paragraph 42(a)–(k) above, incorporated here by reference.

WHEREFORE, Owens Corning prays for judgment against Area Impianti awarding Owens Corning a sum in excess of three million dollars (\$3,000,000) to make Owens Corning whole for the damages it has suffered due to Area Impianti's negligent misrepresentations, and granting such other and further relief as this Court deems appropriate.

#### **COUNT III — NEGLIGENT DESIGN**

- 49. Owens Corning incorporates and realleges the factual allegations made above as if set out here in full.
- 50. Area Impianti designed the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) of the APC System and RTO.
- 51. Area Impianti's design of the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) of the APC System and RTO was defective and hazardous as described above, including specifically Paragraphs 26(a)–(m) and Paragraphs 31, 32(a)–(e), and 33, incorporated here by reference.
- 52. Area Impianti failed to used ordinary care to design the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) of the APC System and RTO to be reasonably safe or to meet the applicable performance standards, and failed to adequately warn of the risk of harm or failure from the defects and hazards described in the preceding paragraph.
- 53. As a result of Area Impianti's failure to use ordinary care in the design the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) of the APC System and RTO, Owens Corning has sustained damage, including damage to the APC System and RTO, damage to its other property at the Joplin Facility, and the damages described in Paragraph 42(a)–(k) above, incorporated here by reference.

WHEREFORE, Owens Corning prays for judgment against Area Impianti awarding Owens Corning a sum in excess of three million dollars (\$3,000,000) to make Owens Corning whole for the damages it has suffered due to Area Impianti's negligent design, and granting such other and further relief as this Court deems appropriate.

### **COUNT IV — NEGLIGENT MANUFACTURE**

- 54. Owens Corning incorporates and realleges the factual allegations made above as if set out here in full.
- 55. Area Impianti manufactured the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) of the APC System and RTO.
- 56. Area Impianti's manufacturing of the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) of the APC System and RTO was defective and hazardous as described above, including specifically Paragraphs 26(a)–(m) and Paragraphs 31, 32(a)–(e), and 33, incorporated here by reference.
- 57. Area Impianti failed to used ordinary care to manufacture the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) of the APC System and RTO to be reasonably safe or to meet the applicable performance standards, and failed to adequately warn of the risk of harm or failure from the defects and hazards described in the preceding paragraph.
- 58. As a result of Area Impianti's failure to use ordinary care in the manufacture of the industrial flue gas treatment systems and waste heat recovery systems (cogeneration) of the APC System and RTO, Owens Corning has sustained damage, including damage to the APC System and RTO, damage to its other property at the Joplin Facility, and the damages described in Paragraph 42(a)–(k) above, incorporated here by reference.

WHEREFORE, Owens Corning prays for judgment against Area Impianti awarding Owens Corning a sum in excess of three million dollars (\$3,000,000) to make Owens Corning whole for the damages it has suffered due to Area Impianti's negligent manufacture, and granting such other and further relief as this Court deems appropriate.

# Respectfully Submitted,

#### LATHROP GAGE LLP

By: /s/ Michael D. Textor

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# **CERTIFICATE OF SERVICE**

I hereby certify that on this the 27th day of April, 2018, I electronically filed the above document with the clerk of the court using the CM/ECF system which sent notice of filing to all counsel of record, including:

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